## This Page Is Inserted by IFW Operations and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

12

15

16 . 17

19

20

21

18

22

24

## Claim Listing under 37 C.F.R. 1,121(c):

Amend claims 40-43, 45-46, 50, 54-59 and add claims 60-75 as follows and in accordance with 37 C.F.R.  $\Box$  1.121(c), by which the Applicant submits the following marked up version only for claims being changed by the current amendment, wherein the markings are shown by strikethrough (for deleted matter) and/or underlining (for added matter):

Claims 1-39 (canceled).

Claim 40 (Currently amended) A stringed musical instrument comprising: an elongated neck.

a and body attached to one end of the said neck,

a tremolo pivotably mounted on said body,

a plurality of strings with a first end and a second end,

a nut means on said neck to formfor supporting and forming a first critical point for and support at least one of said strings,

the said tremolo further comprising:including

at least one bridge elements to forming a support and a second critical point and to support for at least one of said strings, a string anchor means engaging said second end of said at least one of said strings,

a base plate,

a spring holderattachment means,

counter springs with a first end and a second end, said first end of said counter springs connected to said body and said second end of said counter springs secured to said spring holderattachment means for counter balancing the tension of said of said at least one of said strings

wherein said base plate and said spring holder attachment further means comprises: an unitary component formed from a single folded or bent

plate material with a base plate portion and a spring holderettechment-means portion so that said unitary compenent is connected directly to the counterbiosing springs.

ELLIS(AHS)

Claim 41 (Currently amended) An apparatus of claim 40 wherein said string anchor means is located in said apring holder attachment means portion.

Claim 42 (Currently amended) An apparatus of claim 41 wherein said string anchor-means-comprises at least one string passageway within said spring holder attachment means portion.

Claim 43 (Currently amended) An apparatus of claim 42 wherein said base plate portion comprises at least one string holes for threading said at least one of said strings and said at least one string passageway is aligned to at least one string holesaid openings in said base portion.

Claim 44 (Original) An apparatus of claim 40 wherein said base plate portion is formed to create at least one tier for displacing the height of at least one said bridge elements relative to said body.

Claim 45 (Currently amended) An apparatus of claim 40 wherein said tremolo further comprisesis a fulcrum tremolo.

Claim 46 (Currently amended) An apparatus of claim 40 wherein said

Claim 47 (Original) An apparatus of claim 46 wherein said unitary component is formed to create said at least one reinforcement brace.

Claim 48 (Original) An apparatus of claim 40 wherein said tremolo

Claim 49 (Original) An apparatus of claim 40 wherein said tremolo includes a global-tuner.

Claim 50 (Currently amended) An apparatus of claim 45 wherein said fulcrum tremolo including a bearing means-for adjustably mounting said fulcrum tremolo on said budy for pivotal displacement and said bearing means comprises at least a portion of a ball bearing surface.

Claim 51 (Original) An apparatus of claim 42 wherein said tremolo includes a global-tuner.

Claim 52 (Original) An apparatus of claim 44 wherein said tremolo

Claim 53 (Original) An apparatus of claim 44 wherein said tremolo includes a global-tuner.

Claim 54 (Currently amended) A stringed musical instrument comprising; a body, and a neck extending outwardly from said body,

21

a plurality of strings extending from said body to said neck, said strings having a first end and a second end, said second end of said strings having an anchoring portion that is thicker than the diameter of said string,

means for forming a first critical point for each of said strings on said neck, means for forming a second critical point for each of said strings on a fulcrum tremolo,

said fulcrum tremolo includes a base plate,

said base plate being pivotally mounted about a fulcrum axis extending transversely of said strings for changing the pitch of all said strings at one time as said base plate is pivoted,

a string anchor to ing means for receiveing said anchoring portion located on said base,

means for varying the spacing between said first and second critical points for changing the harmonic tuning,

wherein the improvement comprises that at least one string anchoring means on opposite side of at least one said second critical point from said first critical point is located a critical distance from said second critical point such that said at least one string is rendered substantially inextensible between said second critical point and said string anchoring means.

Claim 55 (Currently amended) An apparatus of claim 54 wherein said anchoring portion comprise wrappings and the length of said wrappings being slightly less than the distance between the second critical point and said string anchoring means.

Claim 56 (Currently amended) Tuning apparatus for a stringed musical instrument comprising:

a body, and

a neck extending outwardly from said body,

meens for forming a second critical point for each of said strings on a

said fulcrum tremolo includes a base plate, said base plate being pivotally mounted about a fulcrum axis extending transversely of said strings for changing the pitch of all said strings at one time as said base plate is pivoted,

a mount apparatus toesperate menno for mounting each of said strings on said base plate and tofer raiseing and adjusting the tension of said strings from an untensioned condition to a proper playing pitch including means for varying the spucing between said first and second critical points for changing the hors tuning, said mount apparatus to reparate mesos for mounting each of said strings has a bridge element forming said second critical point and

a string tensionering means on opposite side of said bridge element from said first critical point disposed in a variably spaced relation to said second critical point over which each of said strings extends,

wherein said string tensionering means has a string holder element,

said string holder element has a first portion closer to said second critical point and a second portion more remote from said second critical point

said string holder element includes a restricted interior portion located closest said first end.

said string holder element means displaceable between a first limiting position closest said second critical point and a second limiting position more remote said second critical point.

said first end of said string holder element means-in spaced relation from said second critical point in and between said first and second limiting positions

said restricted portion of string holder element holds said string anchoring portion wherein said string anchoring portion is located a critical distance from said second critical point such that said at least one string is rendered substantially inextensible between said second critical point and said string enchoring means in said first limiting position.

Claim 57 (Currently amended) An apparatus of claim 56 wherein said anchoring portion comprise wrappings and the length of said wrappings being slightly less than the distance between the second critical point and said string anchoring means.

Claim 58 (Currently Amended) A stringed musical instrument comprising; un clongated neck;

a and body attached to one end of the said neck,

a-fulcrum-tremolo.

a plurality of strings with a first end and a second end, said second end of said strings having an anchoring portion that is thicker than the diameter of said string,

eas for forming a first critical point for each of said strings on said neck, a fulcaun tremola, said fulcaum tremolo including bridge elements forming a support and a second critical point for at least one of said strings, said fulcrum tremole including a base plate, said base plate being pivotally mounted about a fulcium axis extending transversely of said strings for changing the pitch of all said stripgs at one time as said base plate is pivoted.

means for varying the spacing between said first and second critical points for changing the hormonic tuning,

5

8

10

12

14 15

> 16 17

> > 19

21

18

22

25

a string anchor tomeans engageing said second end of said at least one of said strings, said fulcrum tremolo includes a base plate, said base plate being pivotally mounted about a fulcrum axis extending transversely of said strings for changing the pitch of all said strings at one time as said base plate is pivoted,

a spring holderattachment means,

counter springs with a first end and a second end, said first end of said counter springs connected to said body and said second end of said counter springs secured to said spring holderettachment means for to counter balanceing the tension of said of said at least one of said strings,

said base plate and said <u>spring holder</u> attachment means comprises an unitary component formed from a single folded or bent plate material with a base plate portion,

wherein the spring holder is formed into aand aattachment means portion of the unitary component so that said unitary component is connected directly to the counterbiasing springs,

wherein said string anchor means is located in said spring holderattachment means portion, said string anchor means comprises at least one string passageway within said spring holder attachment means portion, said base plate portion comprises string holes for threading said at least one of said strings and said at least one string passageway is aligned to said openings in said base portion,

wherein the improvement comprises an alternate string anchoring means on opposite side of at least one said second critical point from said first critical point is located a critical distance from said second critical point such that said at least one string is rendered substanially inextensible between said second critical point and said string anchoring means.

Claim 59 (Currently amended) An apparatus of claim 58 wherein said alternate string anchoring means further comprises:

a separate means for mounting each of said strings on said base place to lear raiseing and to adjusting the tension of said strings from an unconstanted condition to a proper playing titch.

said separate <u>mountments</u>-includes a string tension<u>ering</u> means on opposite side of said bridge element from said first critical point disposed in a vertably spaced relation to said second critical point over which each of said strings

and string tension<u>cring reasons</u> has a string holder element,
said string holder element has a first portion closer to said second critical
point and a second portion more remote from said second critical point,
said string holder element includes a restricted interior portion located
closest said first end,

said string holder element-means-being displaceable between a first limiting position closest said second critical point and a second limiting position more remote said second critical point.

said first end of said string holder element means in spaced relation from said second critical point in and between said first and second limiting positions, said restricted portion of string holder element holds said string auchoring portion wherein said string auchoring portion is focated a critical distance from said second critical point such that said at least one string is rendered substantially

inextensible between said second critical point and said string anchoring means in said first limiting position.

Claim 60 (New) A stringed musical instrument comprising:

a spring holder

counter springs with a first end and a second end, said first end of said counter springs countered to said body, and

a tremple formed from a single bent place material, the tremple having a spring holder portion, the tremple being connected directly to the country springs.

Claim 61 (New). A stringed musical instrument of claim 60, wherein said termelo has at least one reinforcement brace arranged between said base plate portion and said string hotter partien.

Claim 62 (New) A stringed musical instrument of claim 60 wherein said translots fromed to create said at least one reinforcement brace.

Chalm 63 (New) A suringed musical instrument of claim 60 wherein said string special is located in said spring holder postion.

Claim 64 (New) A stringed musical lashument of claim 63 wherein said base plate portion further comprises at least one stringhole, said string holder portion further comprises at least one string passagement, said at least one string passagement is alligned to said at least one string through said base plate portion.

Claim 65 (New). A suringed musical instrument of claim 64 wherein said tremole includes a slubal-tuner.

Claim 56 (New) A stringed musical instrument of claim 60 wherein said base plate portion is formed to create at least one tier for displacing the height of at least one bridge clamate relative to said body.

Claim 67 (New) A stringed austical instrument of claim 66 wherein said trample including a beating for adjustably mounting said trample on said body for

1

pivotal displacement and said bearing comprises at least a portion of a half bearing surface.

Claim 68 (New) A stringed musical instrument of claim 66 wherein said tremate includes a macro-time.

Claim 69 (New) A stringed musical instrument of claim 66 wherein said tremolo includes a global-tuner.

Claim 70 (New) A stringed musical instrument of claim 66 wherein said termolo includes a fulcoum termolo.

Claim 71 (New) A stringed immical instrument of plaim 70 wherein said fulcrum tremulo further countries; a macro-tumer.

Claim 12 (New) A stringed musical insurances of claim 70 wherein said fulcrum tremelo further comprises a global-nucr.

Claim 73 (New). A stringed musical instrument of claim 72 wherein suid fulcrum remote further comprises a bearing for adjustably mounting said fulcrum translo on said kody for pivotal displacement and said bearing further comprises at least a portion of a ball bearing surface.

Claim 74 (New). A stringed musical instrument comprising:

a neck extending outwardly from said body,

a plurality of strings extending from anid body to said neck, said strings having a first end and a second end, said second end of said strings having an anchoring nontion that is thicker than the diameter of said string.

a first cruical point for each of said strings on said neck.

a second critical maint for each of said strings on a fulcrum remole, said fulcrum tremole includes a hase plats, and

a string anchor to receive said string anchoring postion located on said

a string anchor to receive said string anchoring postion located on said base plate, and

wherein at least one said arring anchoring portion on imposite side of at least one said second critical point from said from said second critical point such that said at least one string it rendered substantially inextensible between said second critical point and said at least one string its rendered substantially inextensible between said second critical point and said at least one string and said.

Claim 15 (New). An opportus of claim 74 wherein said suchuring portion further compaise wrappings and the length of said wrappings being slightly less than the distance between the second actitical point and said suring anchor.